

Application Serial No. 10/656,575
Reply to Office Action of March 28, 2006

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Docket: CU-3350

Amendments To The Claims

The listing of claims presented below will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (Currently amended) A method for driving an LCD in which gate lines are sequentially scanned in 1 vertical period, the method comprising the steps of:

sequentially generating a plurality of gate pulse voltages having 1st to 3rd levels while being synchronized with vertical clock signal in said 1 vertical period; in invert driving, dividing the generating period of the plural gate pulse voltages into a charge period, a holding period and a discharge period in respective polar periods corresponding to the 1st to 3rd levels of the plural gate pulse voltage; and

converging pixel voltage of the discharge period to a common voltage level,

wherein the 3rd level exists in a range between the 1st level and the 2nd level and wherein the transition voltage of the 3rd level is selected according to the rise time and fall time of the liquid crystal.

2. (Previously presented) A method for driving an LCD as claimed in claim 1, wherein the rising time of the 3rd level of the liquid crystal is smaller than the falling time of the 3rd level of the liquid crystal.
3. (Previously presented) A method for driving an LCD as claimed in claim 1, wherein

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the holding period is set as more than 2 horizontal periods.

4. (New) A method for driving an LCD as claimed in claim 1, wherein the rise time of the liquid crystal is above 10 ms. and the fall time is below 5 ms.
5. (New) A method for driving an LCD as claimed in claim 1, wherein the discharge period is more than 1 horizontal period 1H but less than 1 vertical period 1V.
6. (New) A method for driving an LCD as claimed in claim 1, wherein the holding period is substantially equal to the duration of one horizontal period 1H minus the duration of one vertical period 1V minus duration of the discharge period t_2 .
7. (New) A method for driving an LCD as claimed in claim 1, wherein the pixel voltage converges to the common voltage level in every frame.
8. (New) A method for driving an LCD as claimed in claim 7, wherein a pixel is held during the holding period and wherein the pixel changes to black during the charge period and during the discharge period.